

Those 22 diseases that, in my experience, are specific to the bit and not caused by any other factor are printed in bold. The first three respiratory diseases are ones that, until now, have always been classified as of unknown cause. Many of the other diseases are most frequently caused by the bit (e.g. the scared horse syndrome) but they are not exclusively caused by the bit. The five items printed in italic are diseases for which the evidence for including them as being even partially bit-induced is flimsy. They are added in the belief that a causative connection may nevertheless be present and, therefore, these suggestions are put forward as possible candidates. This approach is considered to be justified as most of the 'blue' diseases are currently recognized as being of unknown cause anyway and proposals for plausible causative factors are needed.

| BIT-INDUCED DISEASES | | |
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| # | ORAL & DENTAL DISEASES | NOTES |
| 1 | Sore mouth (gingivitis) and lips (dermatitis) | Cuts, abrasions and dermatitis lead to sarcoid formation at the corner of the mouth (lip commissures) |
| 2 | Mandibular periostitis | 'Bone spurs' on the bars of the mouth (very common) |
| 3 | Hypersalivation at exercise | 'Drooling of 'ropes' of saliva, sometimes admixed with air so that the saliva foams |
| 4 | Mandibular osteitis leading to sequestrum formation on the bars | Rare |
| 5 | Laceration of the tongue | Including amputation of the apex of the tongue, laceration of the frenulum |
| 6 | Mandibular fracture | For example, from a loose horse treading on a trailing rein |
| 7 | Temporo-mandibular joint disorders | Evidence questionable but frequently suspected |
| 8 | Dental pain (toothache) | From bit trauma to unerupted vestigial wolf teeth in the lower jaw |
| 9 | Dental pain (toothache) | From bit trauma to wolf teeth in upper jaw (less of a problem than #7) |
| 10 | Erosion & sometimes alveolar periostitis and loosening of the mandibular canine teeth | Rare but occurs in the gelding, or the mare with vestigial canines |
| 11 | Erosion of premolars | Especially the first cheek tooth in lower jaw (common) |
| 12 | Shedding of premolars in lower jaw | Especially the first cheek tooth |
| 13 | Alveolar periostitis | Sequel to paradental disease and shedding |
| 14 | Wave mouth (severe bit erosion of lower PM2 and PM3 probably bilaterally) | End result of #11 above, permitting overgrowth of upper premolars 2 and 3 when the lower premolars are rubbed down to gum level (see photo from AMNH survey) |
| RESPIRATORY DISEASES | | |
| 1 | Elevation of the soft palate | From multiple bit causes (e.g. poll flexion, open mouth, gagging reflexes): Causing asphyxia |
| 2 | Dorsal displacement of the soft palate | Sequel to #1. Causing asphyxia and suffocation at exercise |
| 3 | Dynamic collapse of the nasopharynx | Sequel to #1 & #2. Additional cause of asphyxia |
| 4 | Epiglottal entrapment | Sequel to an open mouth allowing air to enter the oropharynx and exposing the ventral epiglottal mucosa to the negative pressure of inspiration |
| 5 | Dynamic collapse of the larynx | Sequel to obstruction of nasopharynx caused by #s 1-4 above |
| 6 | 'scabbard' trachea | Long-term sequel to obstruction of nasopharynx and larynx at exercise |
| 7 | Hypoxaemia at exercise | Low blood oxygen from upper airway obstruction |
| 8 | Asphyxia-induced pulmonary edema | So-called EIPH or 'bleeding': caused by any upper airway obstruction |
| 9 | Small airway disease (bronchiolitis) | Sequel to upper airway obstruction |
| 10 | Pulmonary congestion | Sequel to upper airway obstruction |
| 11 | Synchronous diaphragmatic flutter | 'Thumps' or spasm of the diaphragm, perhaps triggered by dehydration |
| NERVOUS DISEASES | | |
| 1 | Scared horse syndrome (extremely common) | 'spooky' 'hot' and apprehensive; caused by oral pain or anticipation of such pain (stress) |
| 2 | Trigeminal neuralgia (common) | The 'headshaking' syndrome |
| 3 | Agrophobia | Unwilling to leave the barn |
| 4 | Many character changes bordering on the psychological but explainable as physiological responses to oral pain | Behavioral changes triggered by oral pain are not 'vices' but normal physiological responses, though they are often inconvenient for the rider and the source of accidents to horse and rider |
| CARDIOVASCULAR DISEASES | | |
| | | evidence uncertain |
| 1 | sudden death from heart failure | Sequel to pulmonary congestion |
| 2 | Atrial fibrillation | Sequel to dehydration |
| MUSCULO-SKELETAL DISEASES | | |
| | | sequelae to bit-induced oral pain, hypoxemia and premature fatigue |
| 1 | 'bridle lameness' | Sequel to oral pain |
| 2 | Incoordination | Mimicks EPM and may be mistaken for |
| 3 | Sprains and strains of neck & back | Especially from bit-induced over-bending ('Rollkur') |
| 4 | Tendonitis & desmitis | Sprained tendons & ligaments ('breakdowns') |
| 5 | Arthritis | Sprained joints |
| 6 | Metacarpal osteitis | 'sore shins' (from a horse being constantly on the forehand) |
| 7 | Occipital exostoses | sequel to over-bending ('Rollkur') |
| 8 | Fractures of the base of the skull | From rearing and falling over backwards |
| 9 | Fracture of paramastoid process | From rearing |
| 10 | Broken back | Sequel to rearing and falling; leading to euthanasia |
| 11 | Carpitis | 'chipped knees' |
| 12 | Sesamoiditis | Chip fractures of sesamoid bones |
| 13 | Long bone fractures | Sequel to falls caused by premature fatigue and hypoxemia; leading to euthanasia |
| METABOLIC DISEASES | | |
| 1 | Dehydration | Sequel to sore mouth and disinclination to drink |
| 2 | Rhabdomyolysis ('tying-up') | Oral pain or anticipation of oral pain triggers excess muscle tone leading to cramp |
| 3 | Gastric ulcers | Accepted as being attributable to stress [the bit is a daily source of stress] |